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MEMORANDUM

TO: Collin P. O'Mara

THRU: David S. Small

THRU: Philip J. Cherry

FROM: Kevin F. Coyle, AICP CEP

RE: Recommended CZA Status Decision for Green Recovery Technologies, LLC

DATE: April 25, 2014

Introduction

Green Recovery Technologies, LLC submitted an application on March 27, 2014, seeking a Status Decision under the Delaware Coastal Zone Act ("CZA;" Chapter 70 of Title 7 of the Delaware Code) to determine if a Coastal Zone Act Permit is required to construct and operate a facility in the Riveredge Industrial Park, New Castle, that separates proteins and lipids from poultry processing wastewater "sludge" for use in the pet food industry. The proposed location is within the coastal zone.

Description of the Project

Wastewater material ("sludge"), consisting of approximately 69% lipids, 29% protein, and 2% moisture, that originates at chicken processing plants in South Carolina, will be delivered to the site in 1-ton "supersacks" on box trucks. A small quantity of liquefied flammable gas (dimethyl ether) will be used as a solvent to separate the proteins and lipids, resulting in a "high purity protein stream (free of oil)" and a "high purity lipid stream (free of protein)." The resultant byproducts will then be sold and shipped to manufacturers in the pet food industry.

Project Analysis

The project went through a Regulatory Advisory Service (RAS) meeting on February 18, 2014; a report was issued and sent to the applicant's consultant in a letter dated March 6, 2014 (see attached). While there are some issues that will need to be addressed, none have any bearing on the Status Decision.

There are three possible outcomes from a CZA Status Decision: 1) if the proposed activity is deemed a "heavy industry," they are barred from undertaking that activity in the Coastal Zone; 2) the activity is allowed and requires a CZA permit; and 3) the activity is not regulated; therefore, no Coastal Zone permit is required. The key question in this application is, are they a heavy industry? While the project, according to the application, has some of the characteristics of a "heavy industry" (tanks, distillation or reaction columns, and chemical processing equipment), and has the potential to pollute if a malfunction occurs, it does not possess most (or even a majority) of the characteristics of a heavy industry.

The project is properly deemed a "manufacturing use" under the CZA, according to the statutory definition of that phrase (7 *Del C.* §7002(d)), applicable CZA case law (*Sierra Club Citizens Coalition, Inc. v. Tidewater Environmental Services, 51* A.3d 463 (Del. 2012)*; City of Wilmington v. Parcel of Land*, 607 A.2d 1163, 1165-1167 (Del. 1992)), and the statements made in the Status Decision application. The project, through "the mechanical transformation of organic or inorganic substances" will result in a product/products ("high purity protein and lipid streams") for sale.

Public Commentary

A legal notice announcing receipt of the Status Decision application was published in the News Journal on April 13, 2014 and in the New Castle Weekly on April 16, 2014. In an e-mail from John Austin, dated April 16, 2014, he observed that "(t)he Green Recovery Technologies, LLC CZA Status Decision Application states at page 6 (Part 3) that a liquefied flammable gas is to be used as a solvent to separate the protein fraction from the lipid fraction. Later at 14 J. it is stated "Should a release occur, there are internal HVAC controls to promptly remove any potentially hazardous emissions from the work area. The solvent use will evaporate after exposure to the air and cannot cause any harmful impact on the community or employees." Thus, there will be use of an unidentified flammable agent in the process and when and if there are some process leaks some emission of the flammable gas. Also, there will be likely emissions of residual solvent in the products or process residuals produced." He further requested that the "flammable gas to be used in the process (should) be identified and its emissions under normal operations quantified before further consideration of this application. Only then may the environmental impacts of the proposed process be understood." Maya van Rossum, Delaware Riverkeeper Network, in a letter dated April 23, 2014, stated that "(a)lthough we support the development of recycling or re-use type technologies, we are not sure that these industrial facilities with unproven technologies are appropriate for the coastal zone. We would urge you to obtain additional details about the proposed facility and additional specifics of the processes, chemicals, and flammable gases that would be utilized at this facility to inform your decision with regards to this application. Thank you for your consideration and we look forward to reviewing any additional data and information you may obtain about this

project." The air quality concerns raised by the public comments are governed by applicable air permitting requirements.

Recommendation

Based on the analysis of the Deputy Attorney General assigned to represent the Department with respect to matters arising under the Coastal Zone Act in a memorandum dated April 10, 2014 (see attached), a coastal zone permit is required by 7 *Del. C.* § 7004 because the proposed facility will be a new "manufacturing" use under the CZA.

5/8/14

Approved, Collin P. O'Mara, Secretary Date

PRIVILEGED AND CONFIDENTIAL
ATTORNEY-CLIENT COMMUNICATION

MEMORANDUM

TO: Kevin Coyle, Principal Planner

FROM: Robert F. Phillips, Deputy Attorney General RFP

RE: Green Recovery Technologies, LLC- Request for Coastal Zone Status Decision

DATE: April 10, 2014

I have received your request for a legal review of the above-referenced matter. In connection therewith I have reviewed Green Recovery Technologies' ("GRT") application for a coastal zone status decision (and its attached feasibility assessment), the Coastal Zone Act (the "CZA"), and a recent Delaware Supreme Court case, *Sierra Club Citizens Coalition, Inc. v. Tidewater Environmental Services*, 51 A.3d 463 (Del. 2012) that fleshed out the statutory definitions of "heavy industry" and "manufacturing."

GRT has submitted an application for a status decision regarding their proposed construction and operation of a facility within the coastal zone that will separate a "sludge" derived from poultry processing operations into its lipid fractions and protein fractions (the "Facility"). The Facility will produce for sale a "high purity protein stream (free of oil)" and a "high purity lipid stream (free of proteins)". The two products will be sold for use as ingredients in animal food. GRT's application states that the Facility will be a "manufacturing" use within the coastal zone that will produce "new products" at the Facility (*See*, GRT's responses to Questions 4.5 and 4.15 of their application, respectively).

The CZA places proposed projects in two categories. If a project would constitute a heavy industry use, then 7 *Del. C.* § 7003 prohibits it. If a project would constitute a manufacturing use, then 7 *Del. C.* § 7004 permits it "by permit only." If a proposed project fits into neither category, it is not regulated by the CZA. The Facility fits into the "manufacturing" category and will require a Coastal Zone Act permit.

The Facility will not be a "heavy industry use". The definition of that phrase includes descriptions of characteristics of projects that would count as heavy industry use, and then provides examples of those kinds of facilities. [1] The Facility has some of the characteristics of a

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1. 7 *Del. C.* § 7002(e) states:

> "Heavy industry use" means a use characteristically involving more than 20 acres, and characteristically employing some but not necessarily all of such equipment such as, but not

"heavy industry use", but does not exhibit many of them and does not resemble the examples. Perhaps most importantly, the Facility will cover only about ½ acre. Further, the CZA mentions that heavy industry use projects will "employ [ ] some but not necessarily all of such equipment such as, but not limited to, smokestacks, tanks, distillation or reaction columns, chemical processing equipment, scrubbing towers, pickling equipment and waste-treatment lagoons...." 7 *Del. C.* § 7002(e). The Facility includes three of those types of equipment, but does not include even a majority of them. Furthermore, all the examples provided in § 7002(e)—"heavy oil refineries, basic steel manufacturing plants, basic cellulosic pulp-paper mills, and chemical plants such as petrochemical complexes"—pose a much greater threat to the environment than does the Facility.

The Facility will include tanks, a distillation or reaction column, chemical processing equipment (*See*, GRT's application at Question 4.6) and has the potential to pollute if something malfunctions. But the Facility does not become a heavy industry use merely because it meets part of the definition. The Act's definition of heavy industry use, however, suggests that unless a proposed plan has most of the listed characteristics, it will probably not fit the definition of heavy industry use. The phrase "some but not necessarily all" suggests that unless a proposed facility includes almost all of the listed characteristics, or closely resembles the provided paradigmatic examples, it will not satisfy the definition of heavy industry use. *Sierra Club Citizens Coalition, Inc. v. Tidewater Environmental Services*, 51 A.3d at 466-467.

The Facility is properly deemed a "manufacturing use" under the CZA. That categorization is supported by the statutory definition of that phrase,[2] applicable CZA case law, [3]

> limited to, smokestacks, tanks, distillation or reaction columns, chemical processing equipment, scrubbing towers, pickling equipment and waste-treatment lagoons; which industry, although conceivably operable without polluting the environment, has the potential to pollute when equipment malfunctions or human error occurs. Examples of heavy industry are oil refineries, basic steel manufacturing plants, basic cellulosic pulp-paper mills, and chemical plants such as petrochemical complexes.... Generic examples of uses not included in the definition of 'heavy industry' are such uses as garment factories, automobile assembly plants and jewelry and leather goods manufacturing establishments, and on-shore facilities, less than 20 acres in size, consisting of warehouses, equipment repair and maintenance structures, open storage areas, office and communication buildings, helipads, parking space and other service or supply structures required for the transfer of materials and workers in support of off-shore research, exploration and development operations; provided, however, that on-shore facilities shall not include tank farms or storage tanks.

2 The term "manufacturing" is defined in 7 *Del. C.* § 7002(d) as follows:

> the mechanical or chemical transformation of organic or inorganic substances into new products, characteristically using power-driven machines and materials handling equipment, and including establishments engaged in assembling component parts of manufactured products, provided the new product is not a structure or other fixed improvement.

3. *Sierra Club Citizens Coalition, Inc. v. Tidewater Environmental Services, supra; City of Wilmington v. Parcel of Land*, 607 A.2d 1163, 1165- 1167 (Del. 1992)

and the statements made in GRT's application.

The Facility will be considered a manufacturing use because by "the mechanical or chemical transformation of organic or inorganic substances" it will produce a product for sale. *Cf, Sierra Club Citizens Coalition, Inc. v. Tidewater Environmental Services, supra* at 468. In *Sierra Club* the Delaware Supreme Court stated that a

> "product" is "something that is distributed commercially for use or consumption and that is usu [ally] (1) tangible personal property, (2) the result of fabrication or processing, and (3) an item that has passed through a chain of commercial distribution before ultimate use or consumption.

Supra, citing BLACK'S LAW DICTIONARY 1245 (8th ed. 2004). It is clear from GRT's application also that the Facility will use "power-driven machines and materials handling equipment" as part of its usual operations (*See*, GRT's "Project Summary" and the feasibility study attached to its application).

The Facility will make two products for commercial sale and is, therefore, a "manufacturing use" (*See*, GRT's responses to Questions 4.5 and 4.15 of their application, respectively) that will require a CZA permit in order to operate within the coastal zone.

I hope this memo adequately responds both to your request. Please contact me if you have any further questions or concerns.

cc: Environmental Unit